

FIG. 1

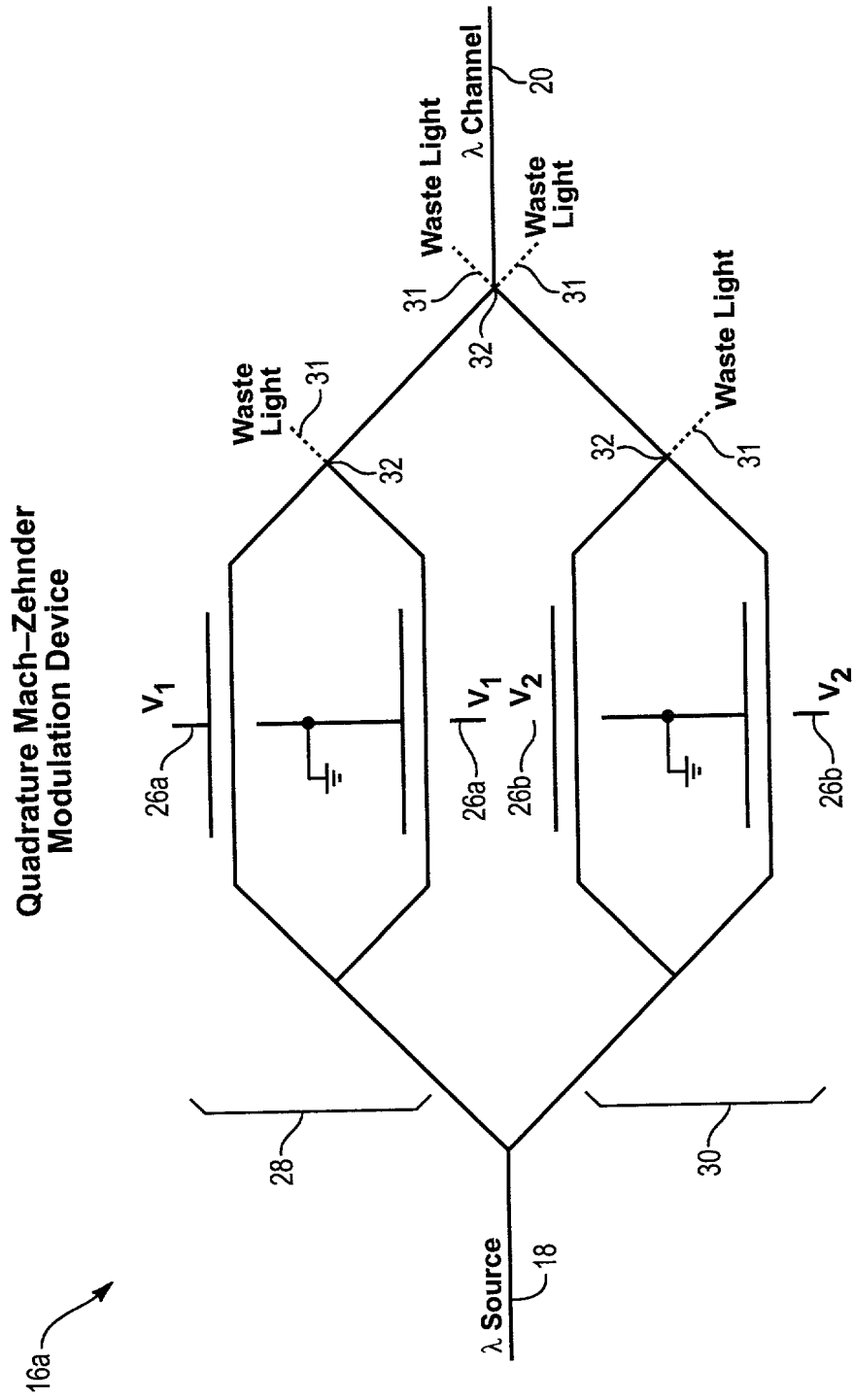


FIG. 2

Mach-Zehnder Device
Transfer Function

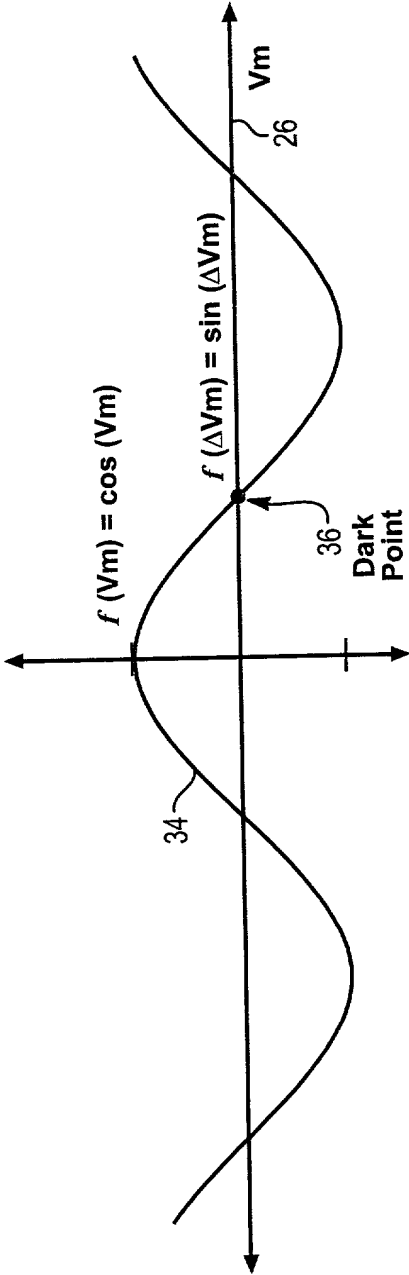


FIG. 3

12

Modulation Synthesizer

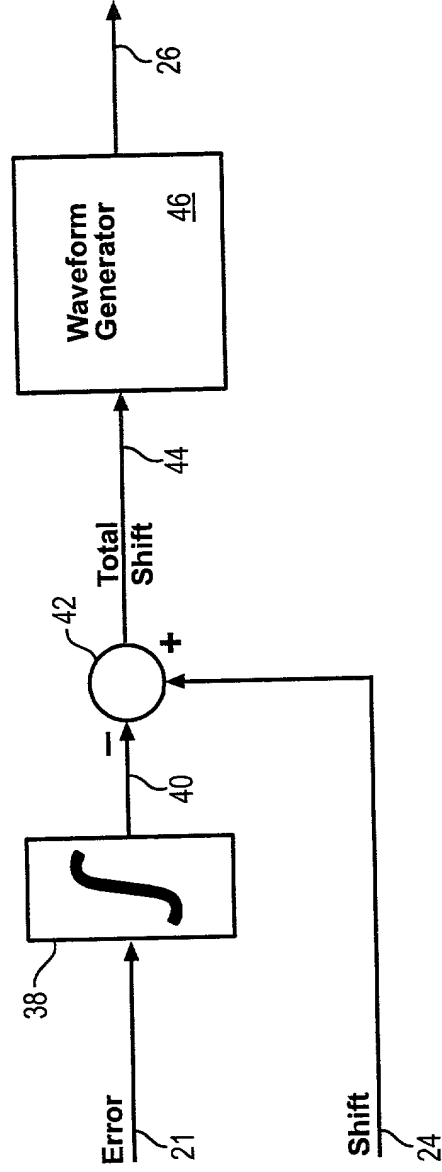


FIG. 4

12b

Quadrature Modulation Synthesizer (With On/Off Data Keying)

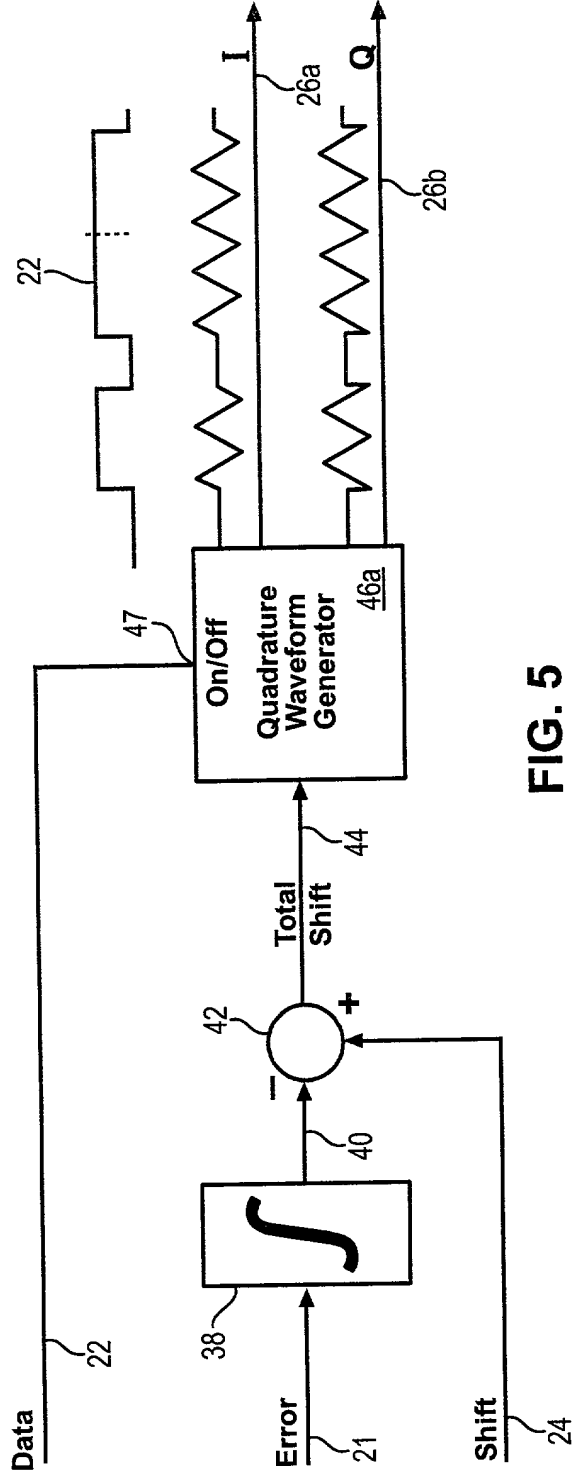


FIG. 5

Phase Modulation Device

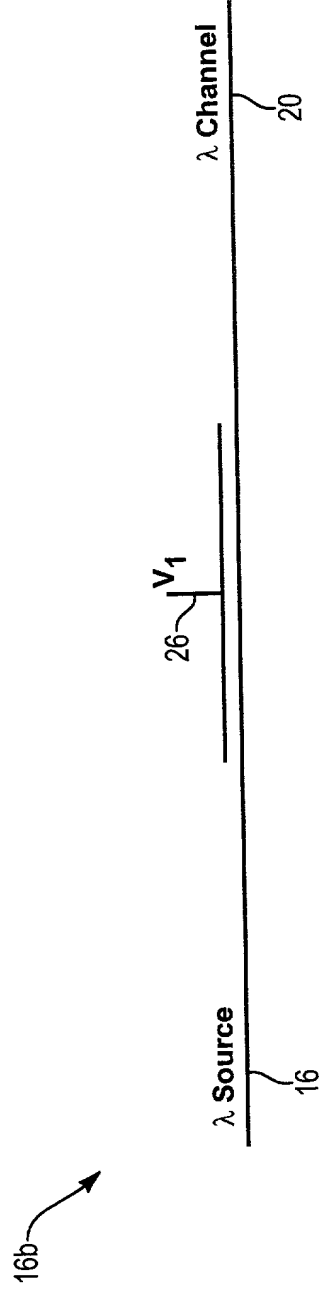


FIG. 6

Modulation Synthesizer (With Frequency Shift Keying)

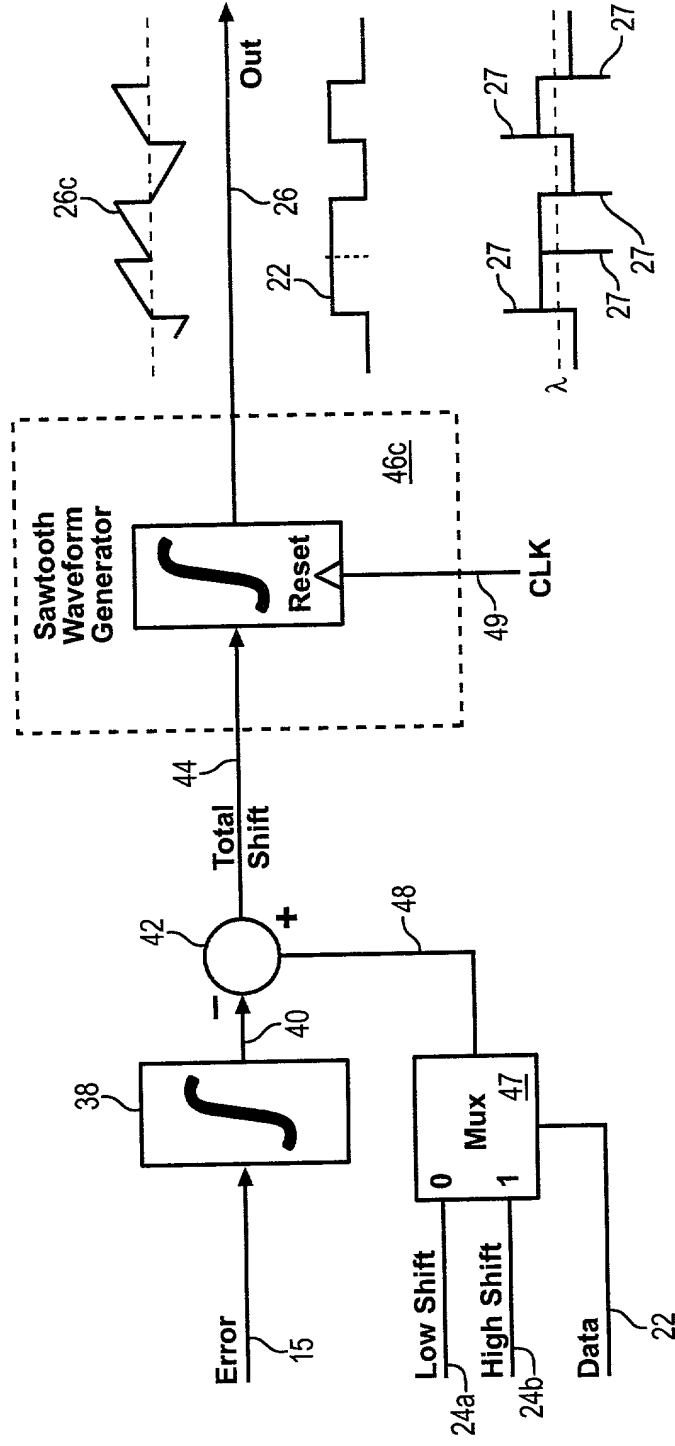


FIG. 7

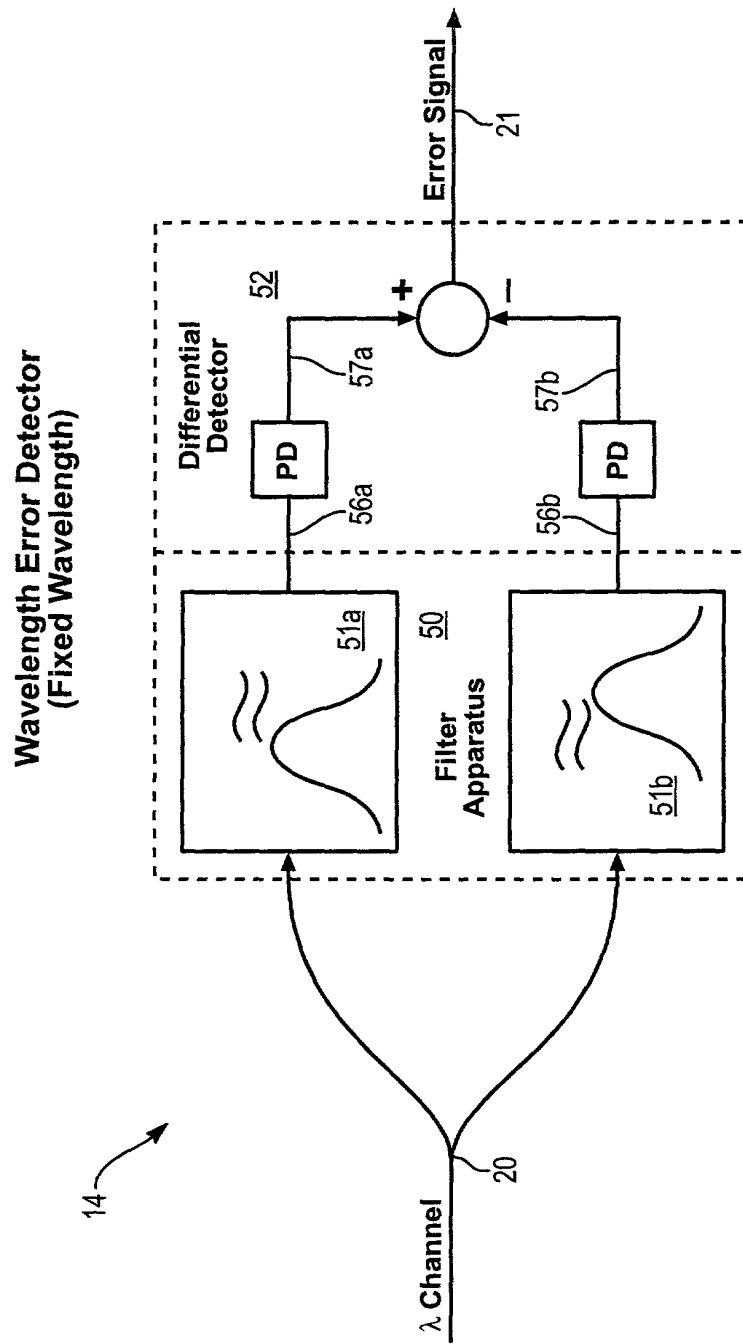


FIG. 8

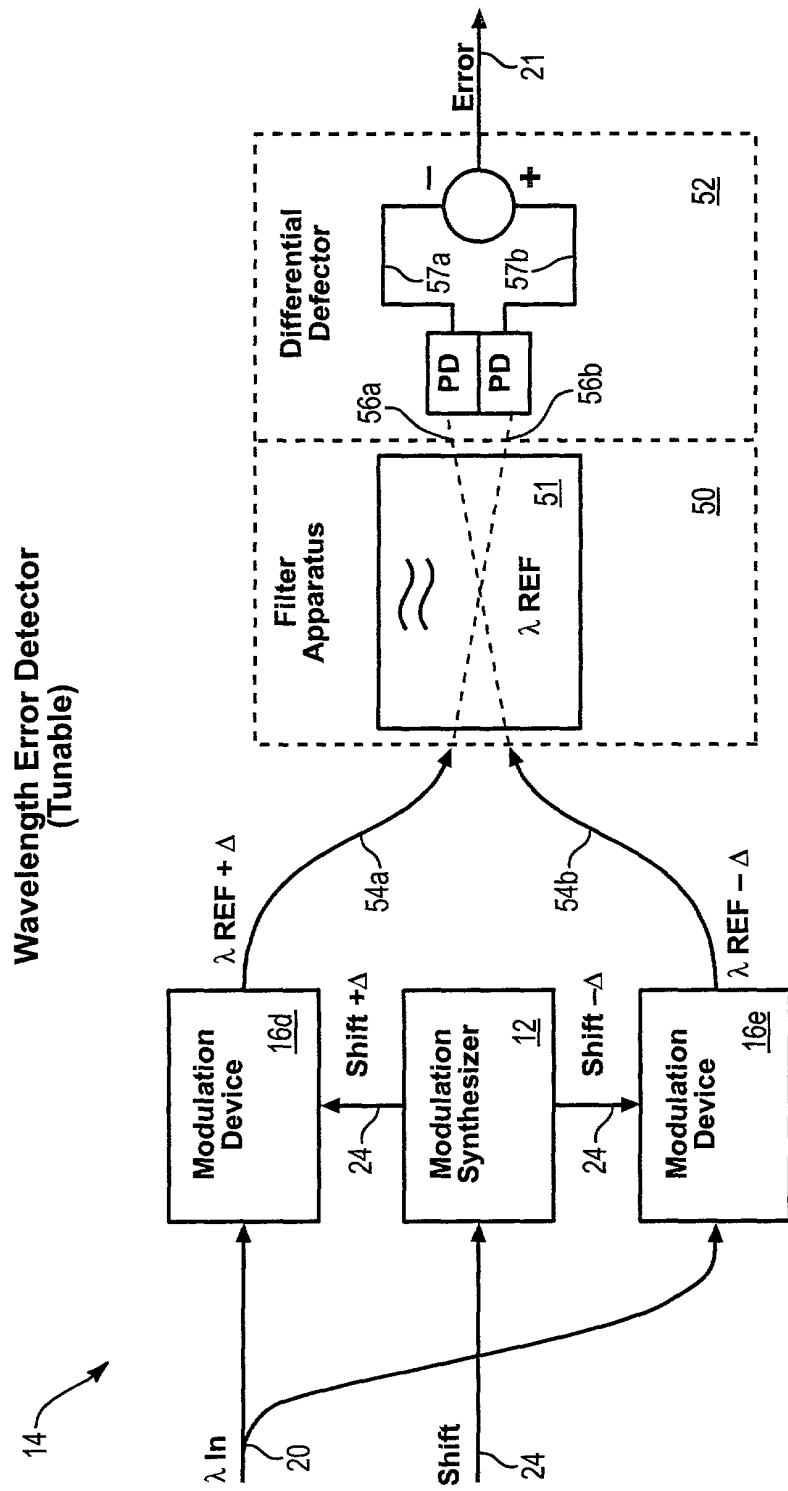


FIG. 9

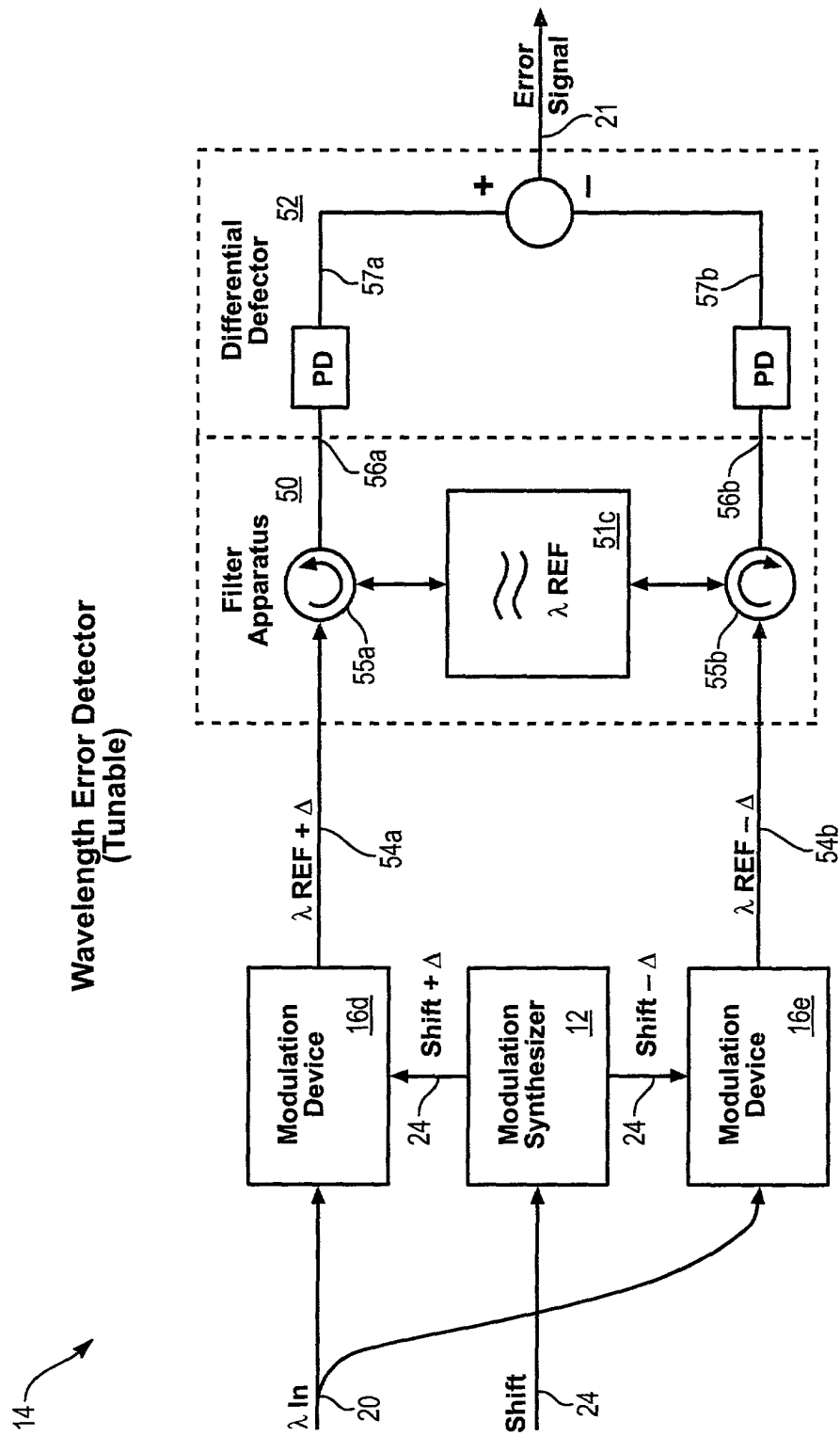


FIG. 10

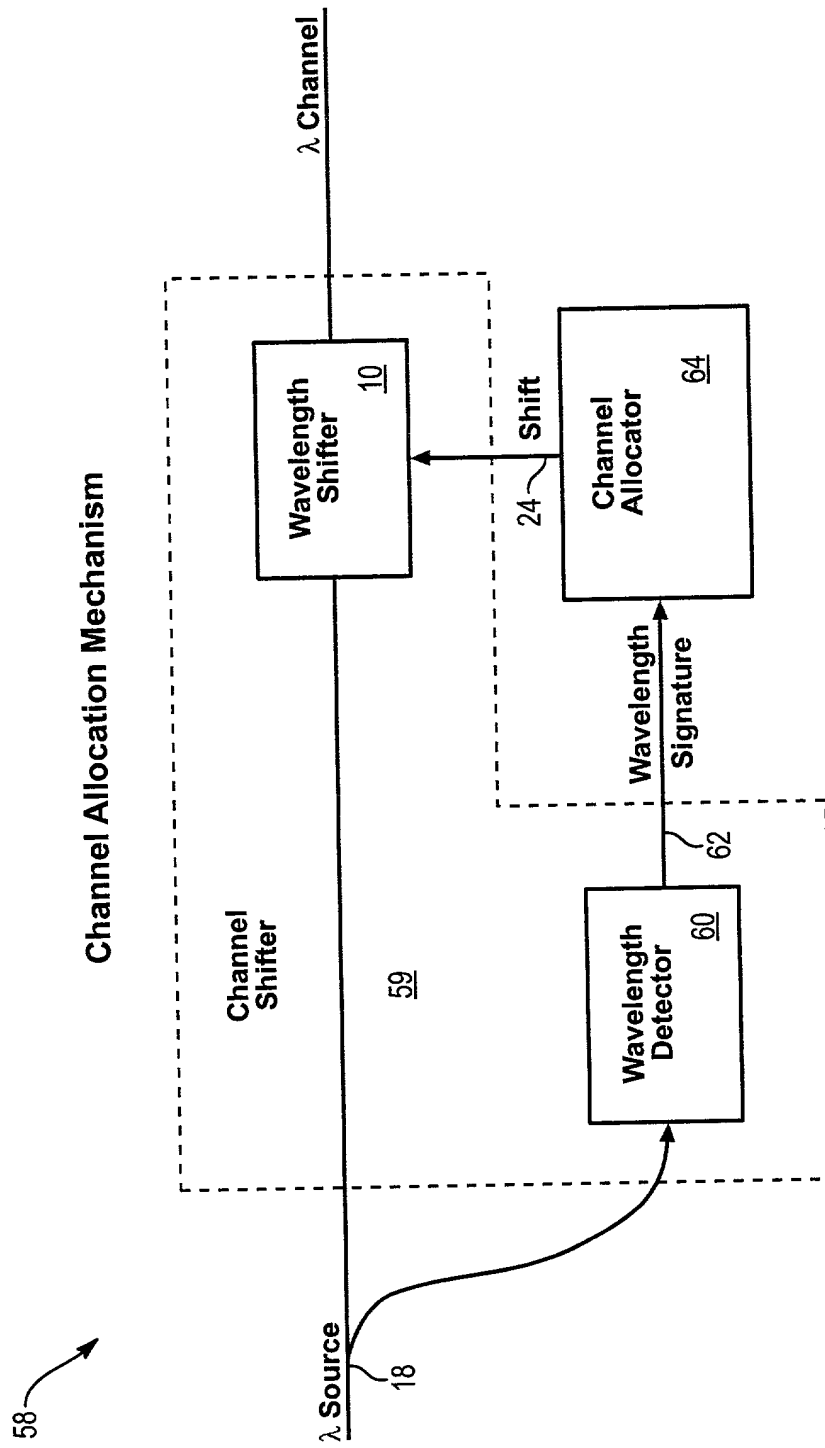


FIG. 11

70

Tunable Wavelength Stabilized Transmitter

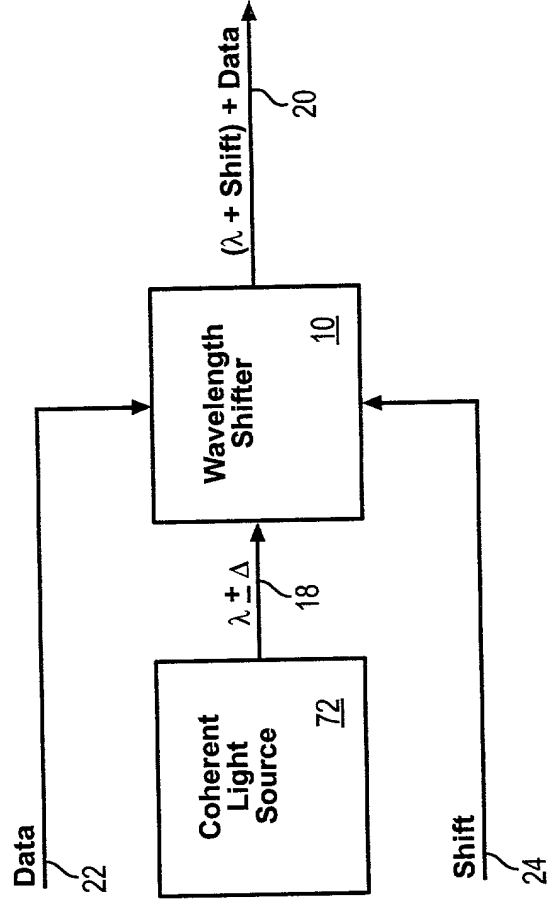
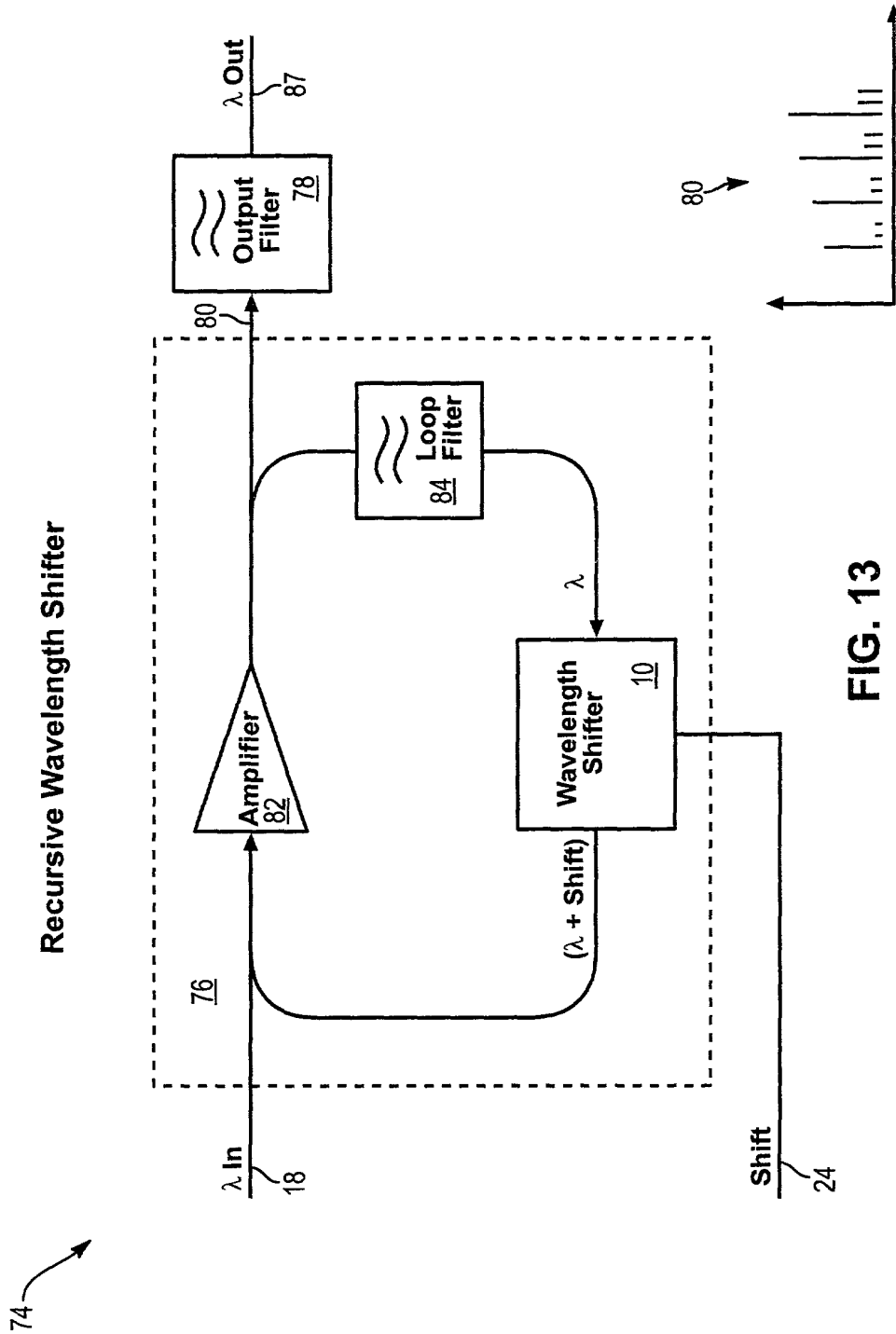


FIG. 12



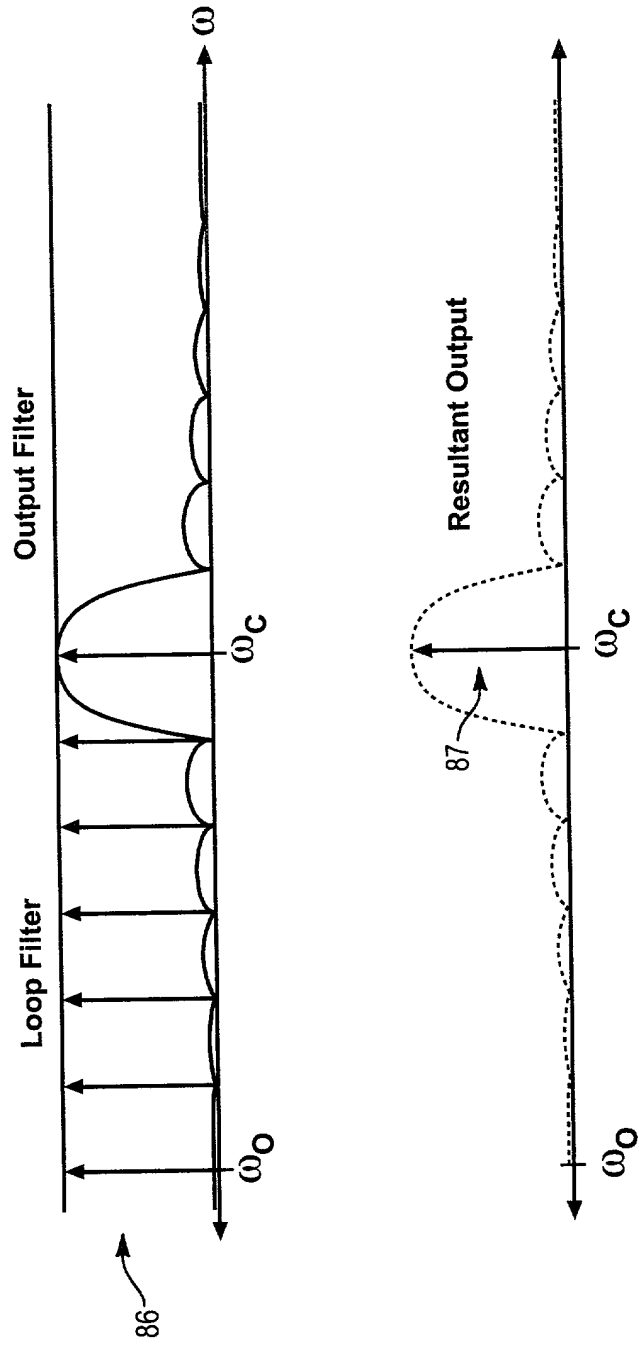


FIG. 14

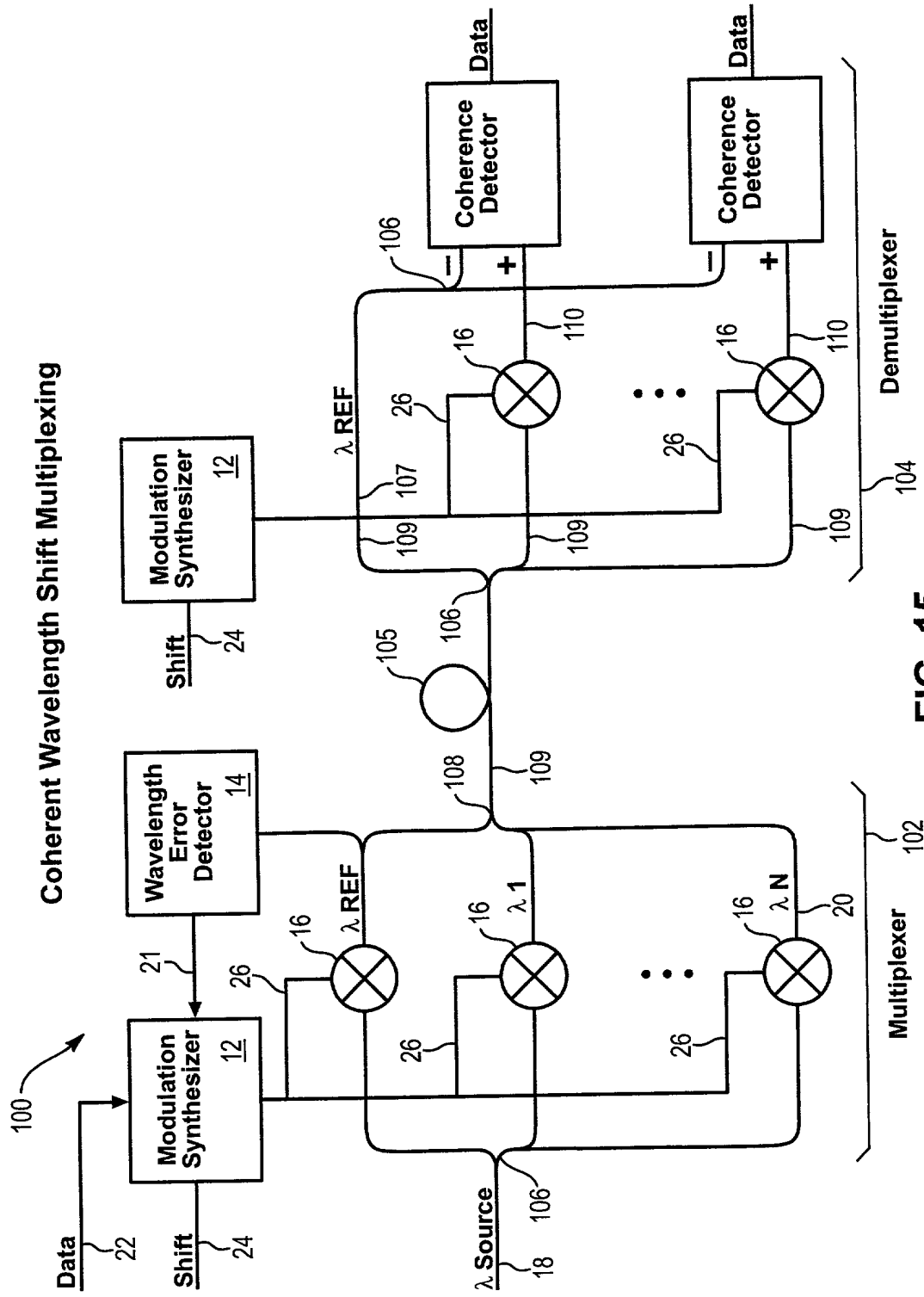


FIG. 15

Full-Duplex Photonic Signals

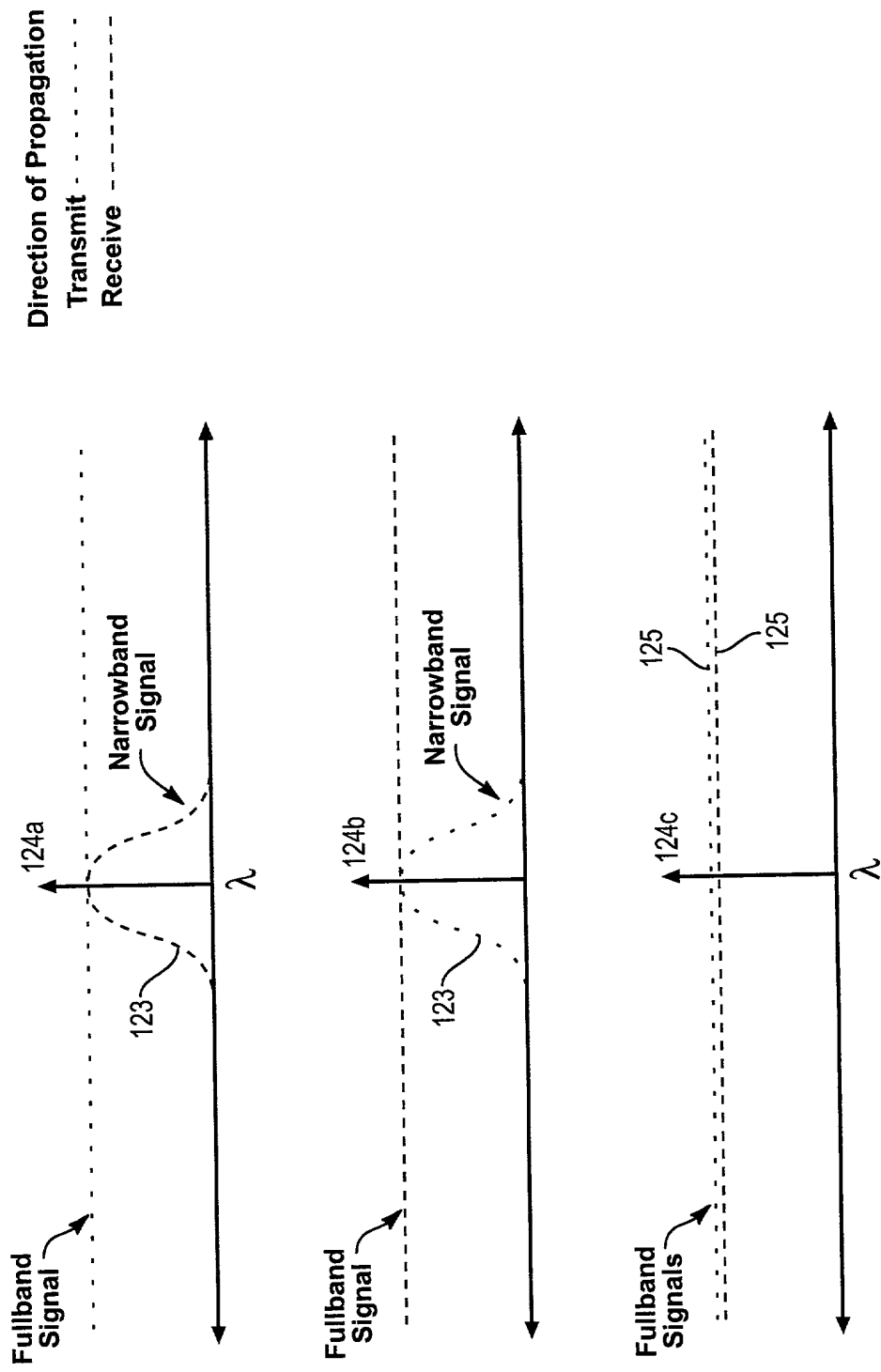


FIG. 16

Wavelength-Shifting Transceivers

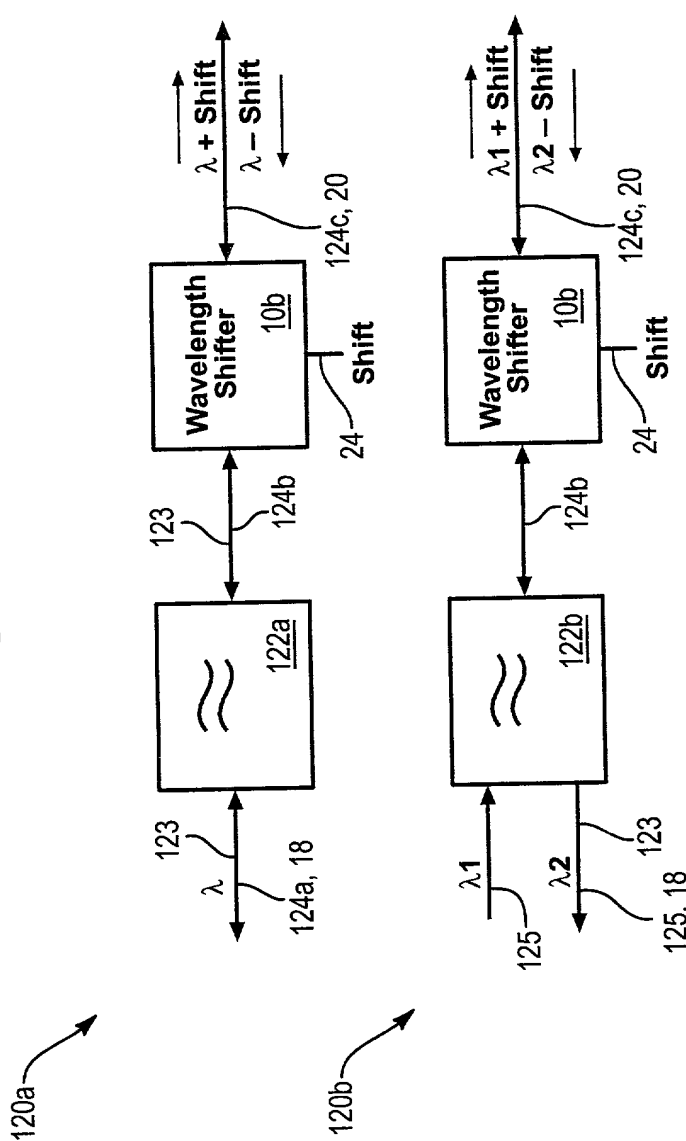


FIG. 17

Full-Duplex Narrowband Filters

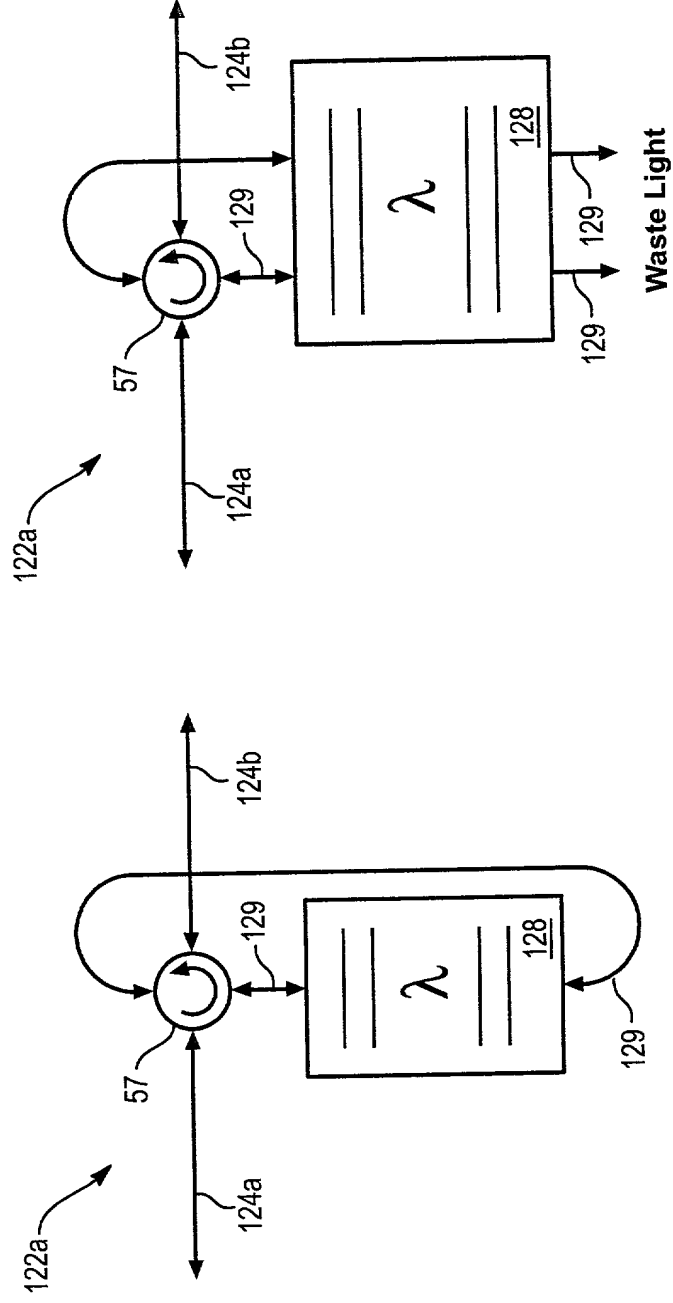


FIG. 18a

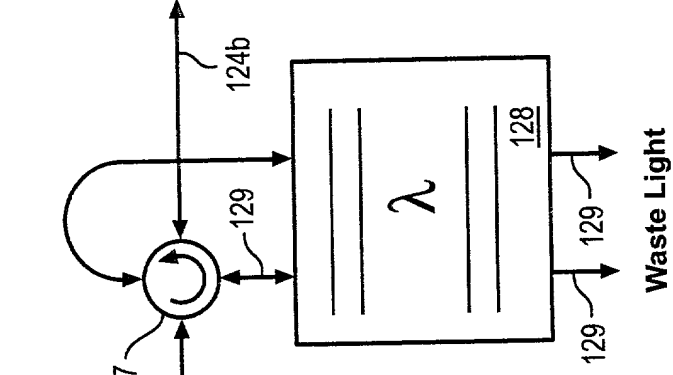


FIG. 18b

Pseudo Full-Duplex Narrowband Filter

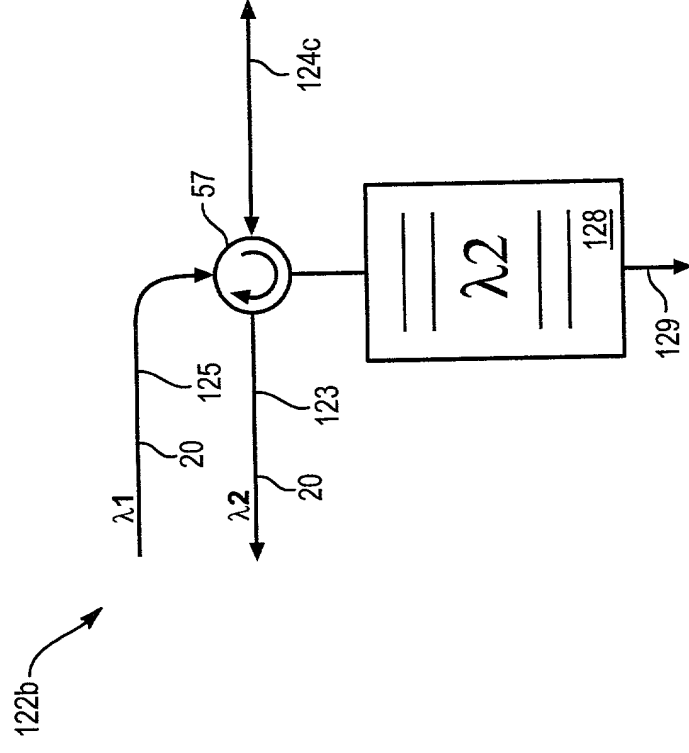
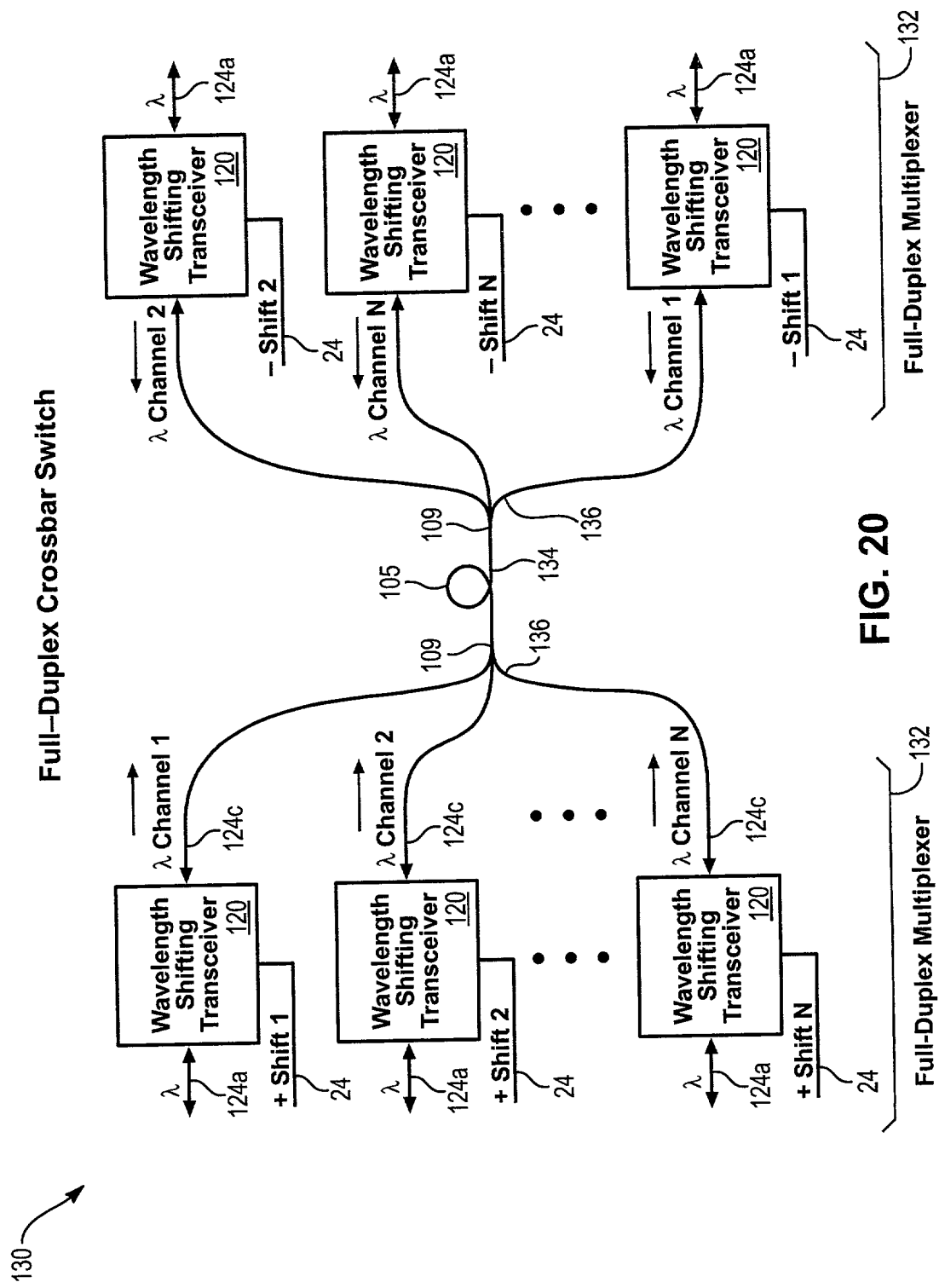


FIG. 19



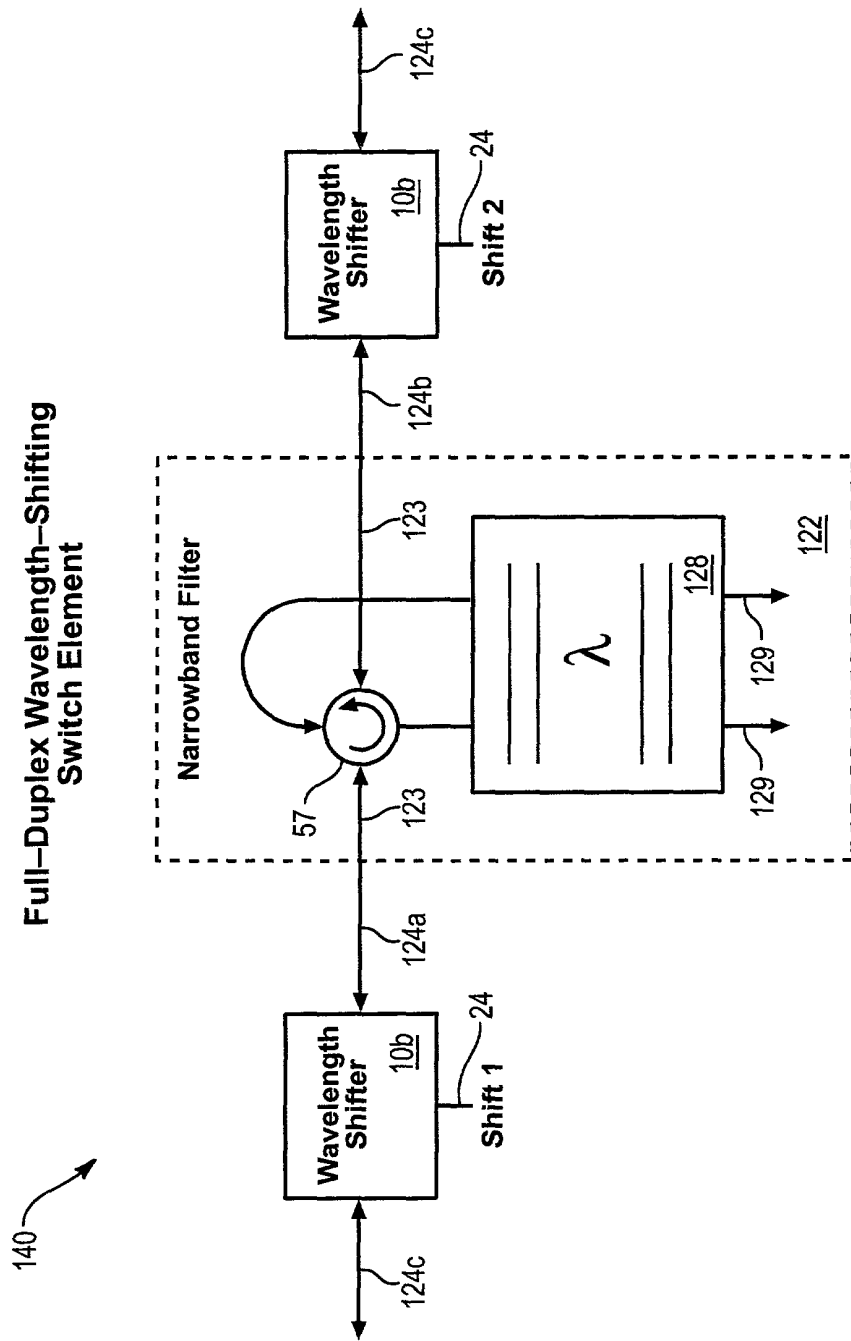


FIG. 21

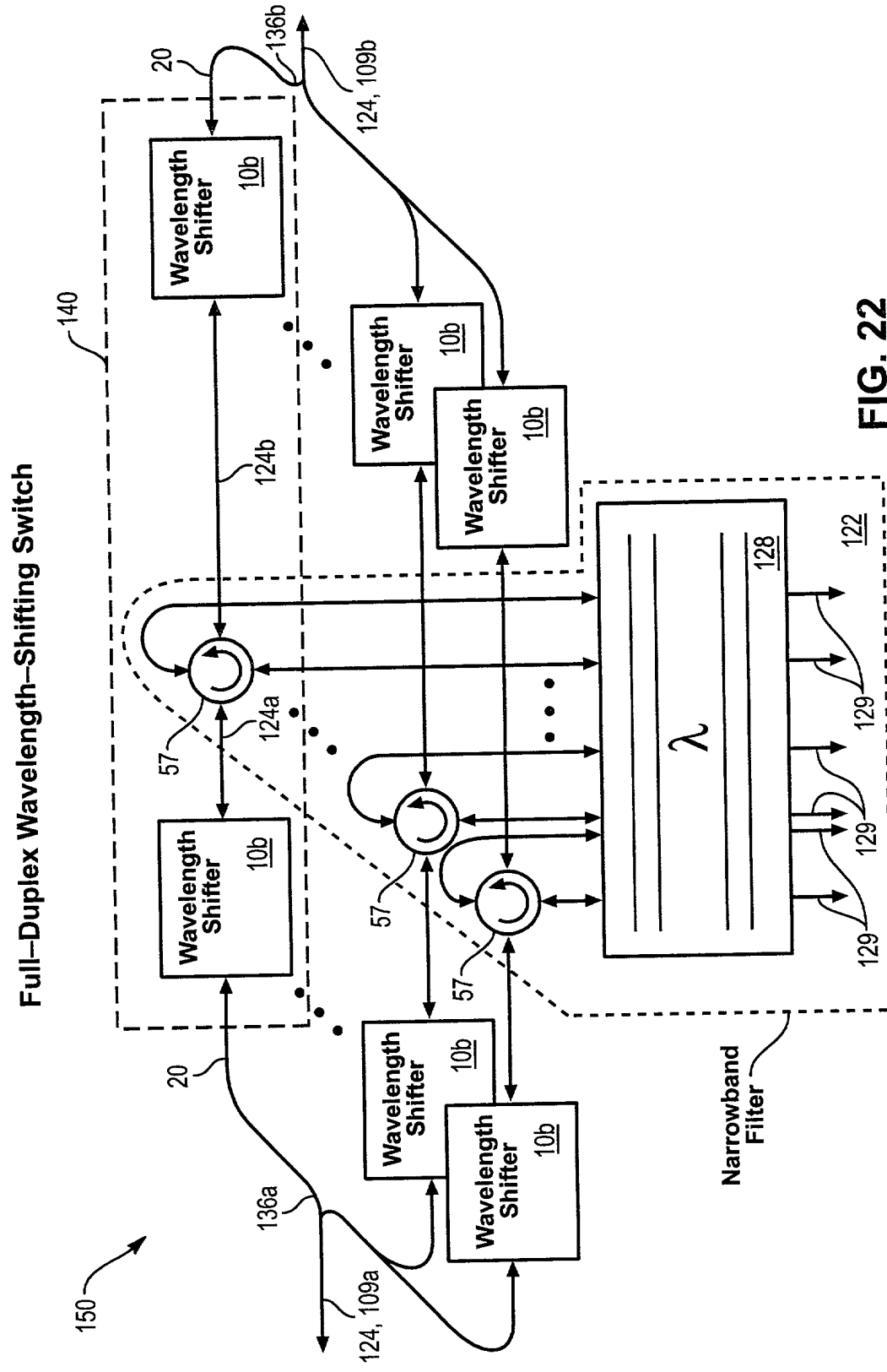


FIG. 22

160

Replicated-Spectrum Transceiver

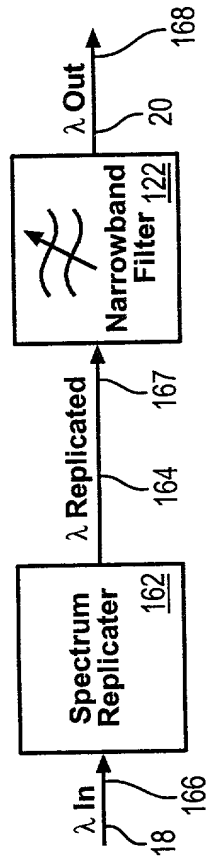


FIG. 23

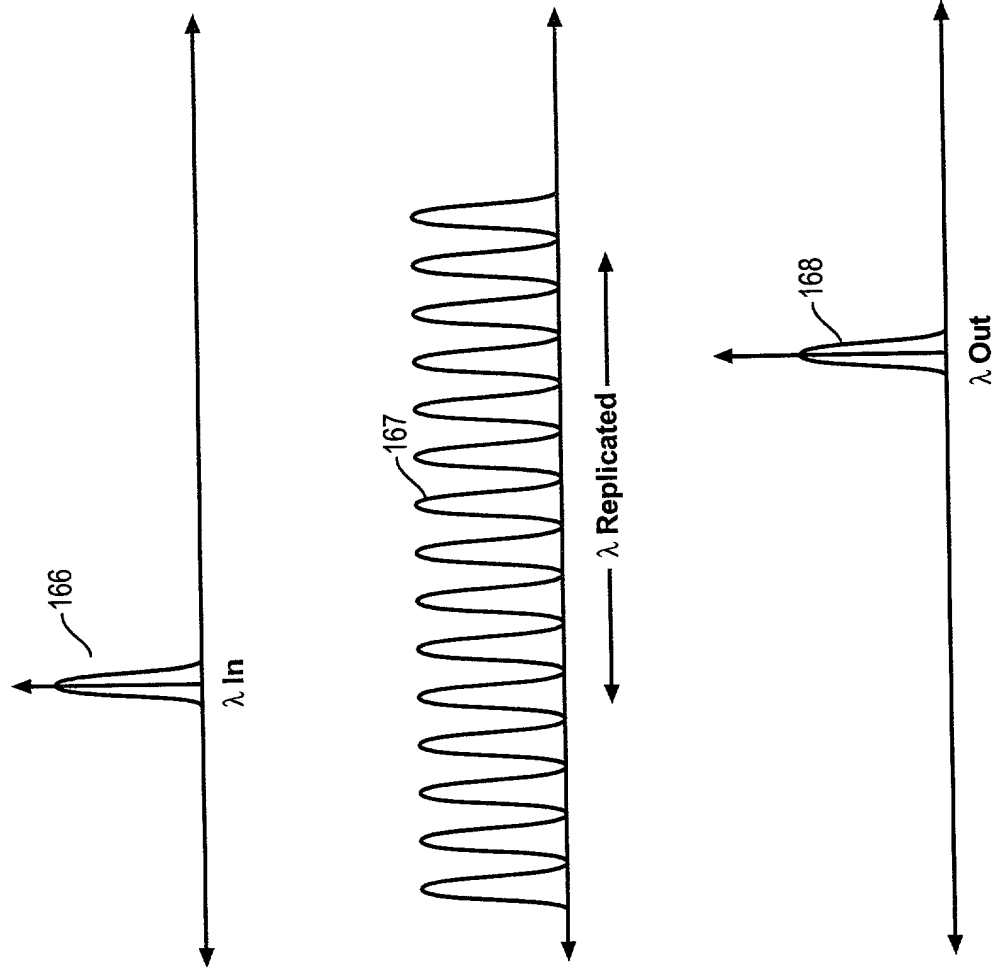


FIG. 24

170

Wavelength-Shifting Replicator

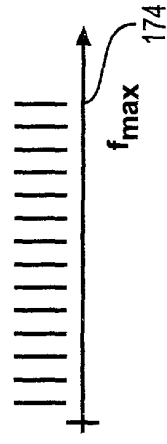
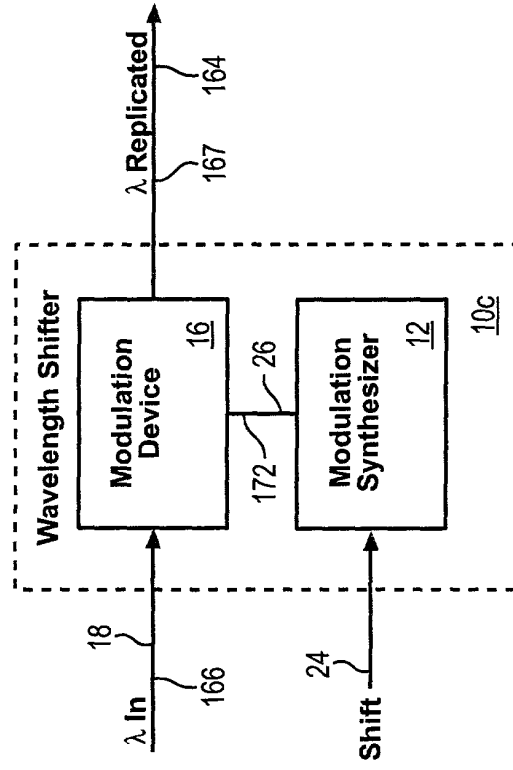


FIG. 25

180

Recursive Wavelength-Shifting Replicator

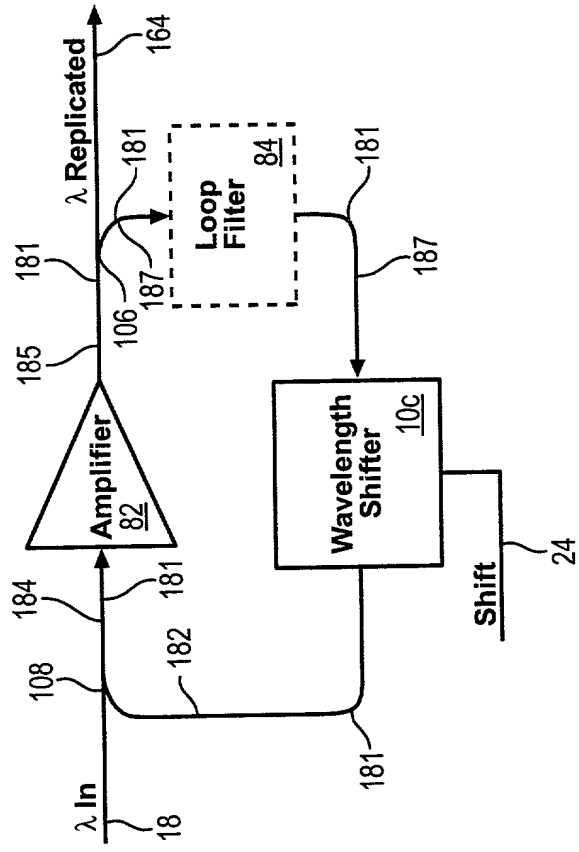
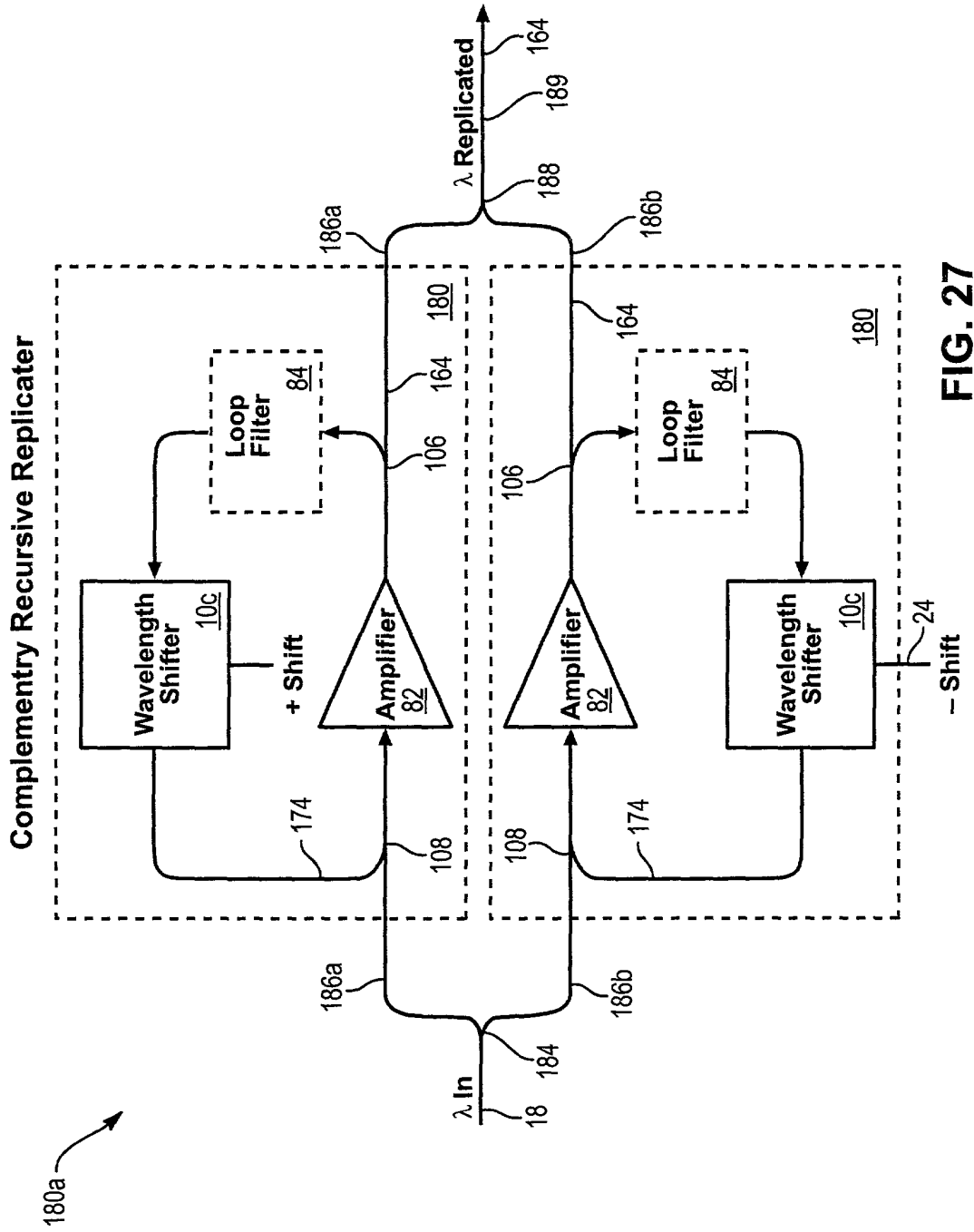


FIG. 26



190

Four-Wave-Mixing Replicator

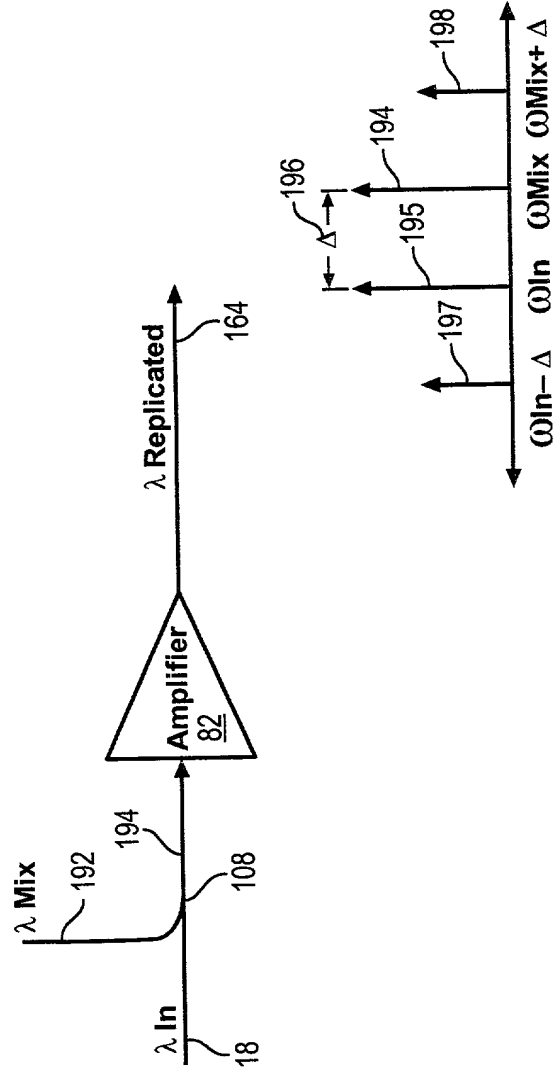


FIG. 28

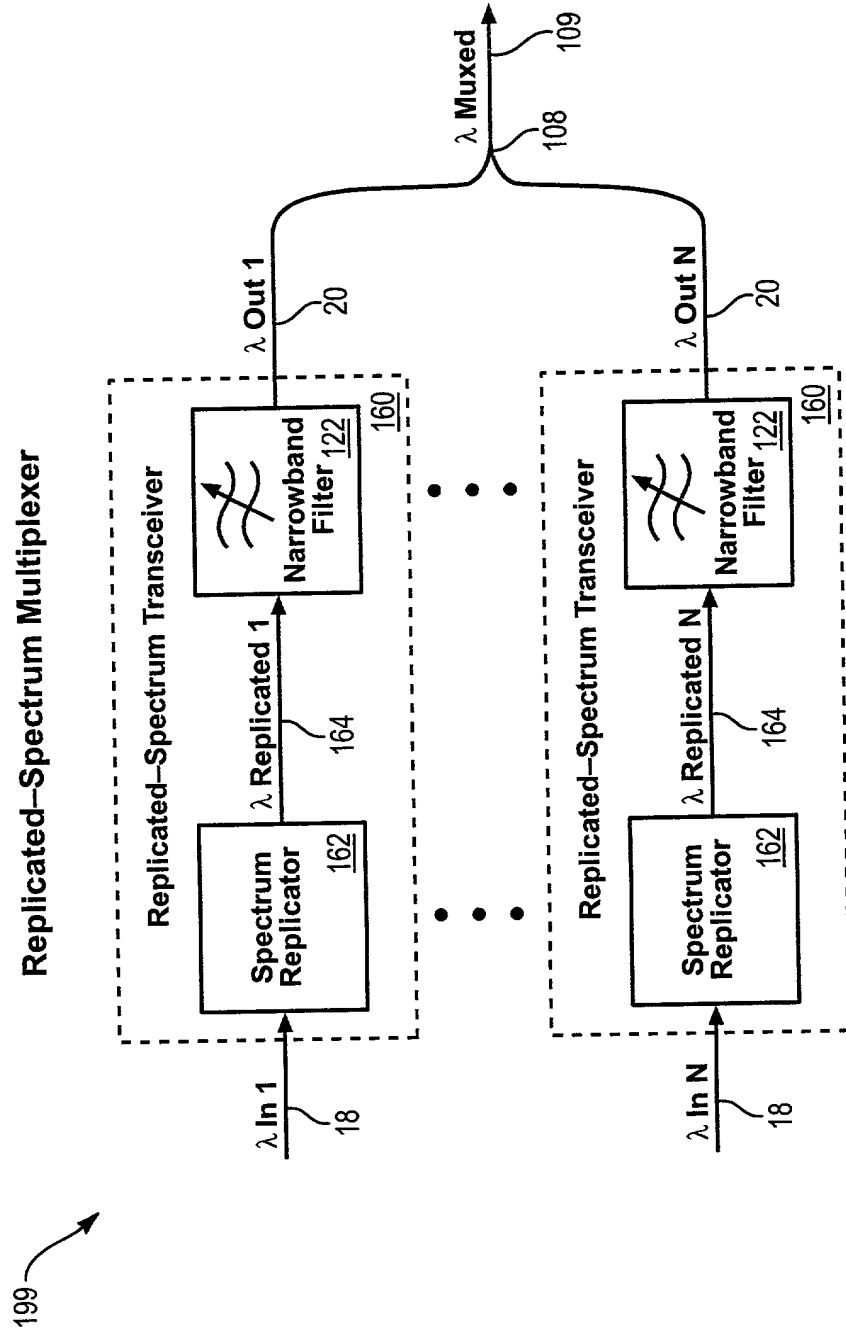


FIG. 29

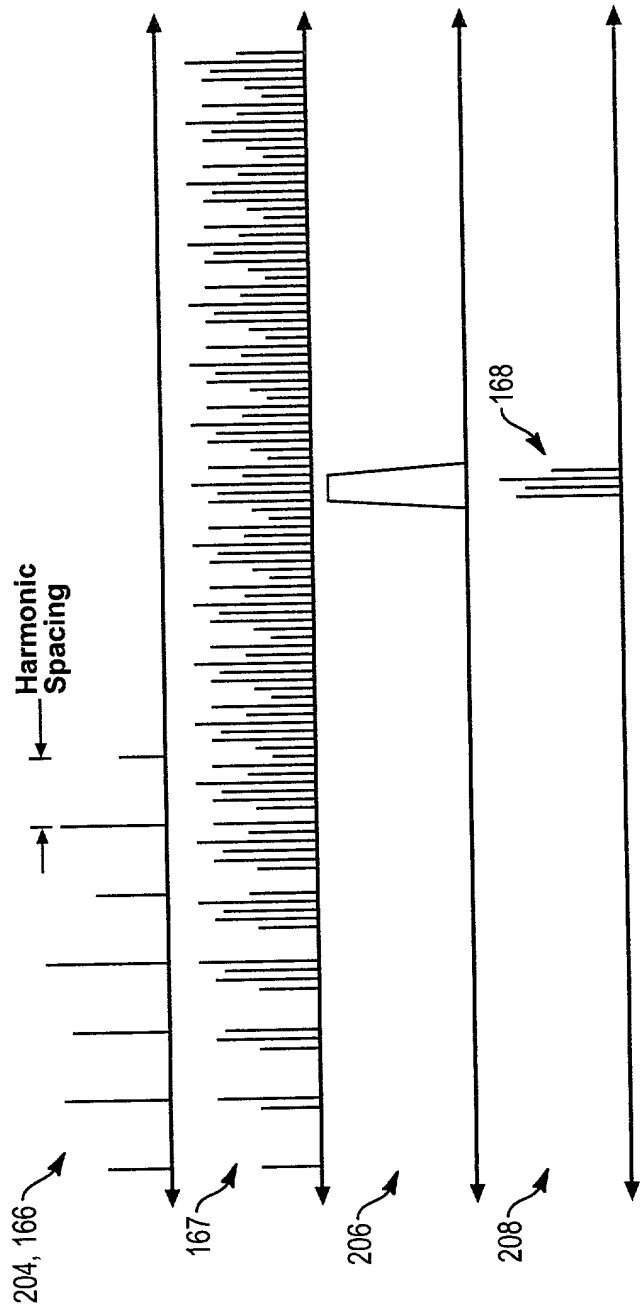
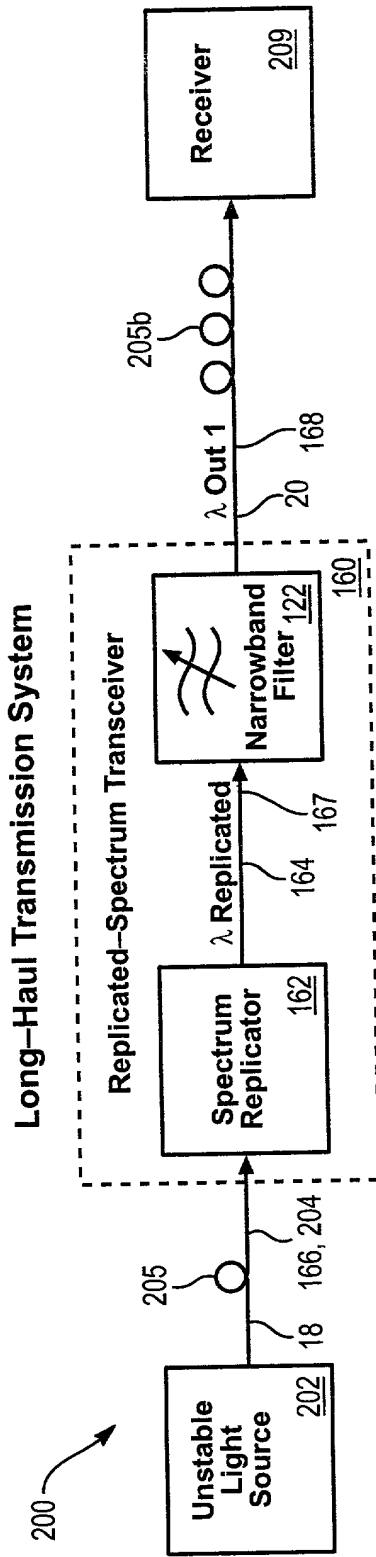


FIG. 30

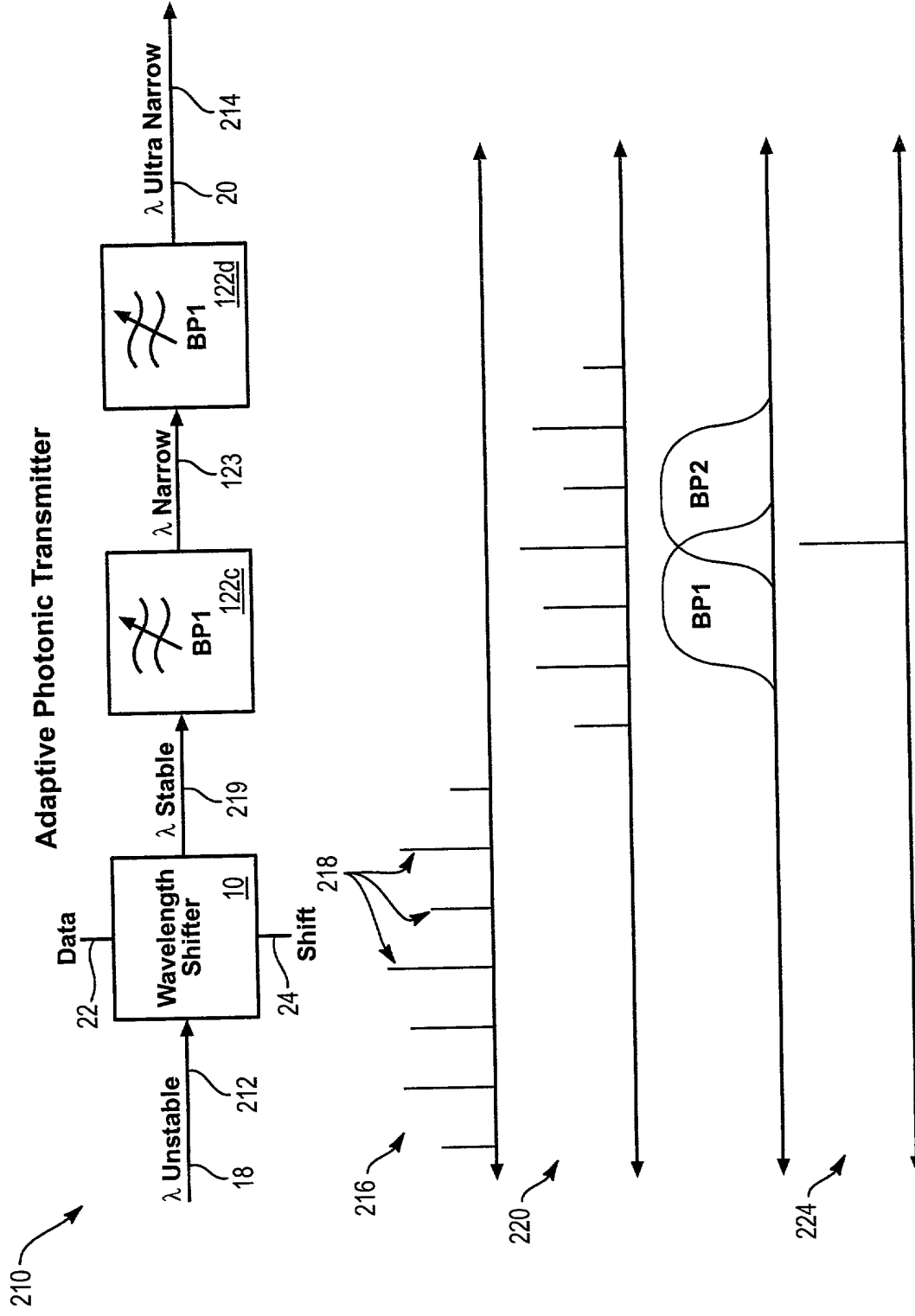


FIG. 31

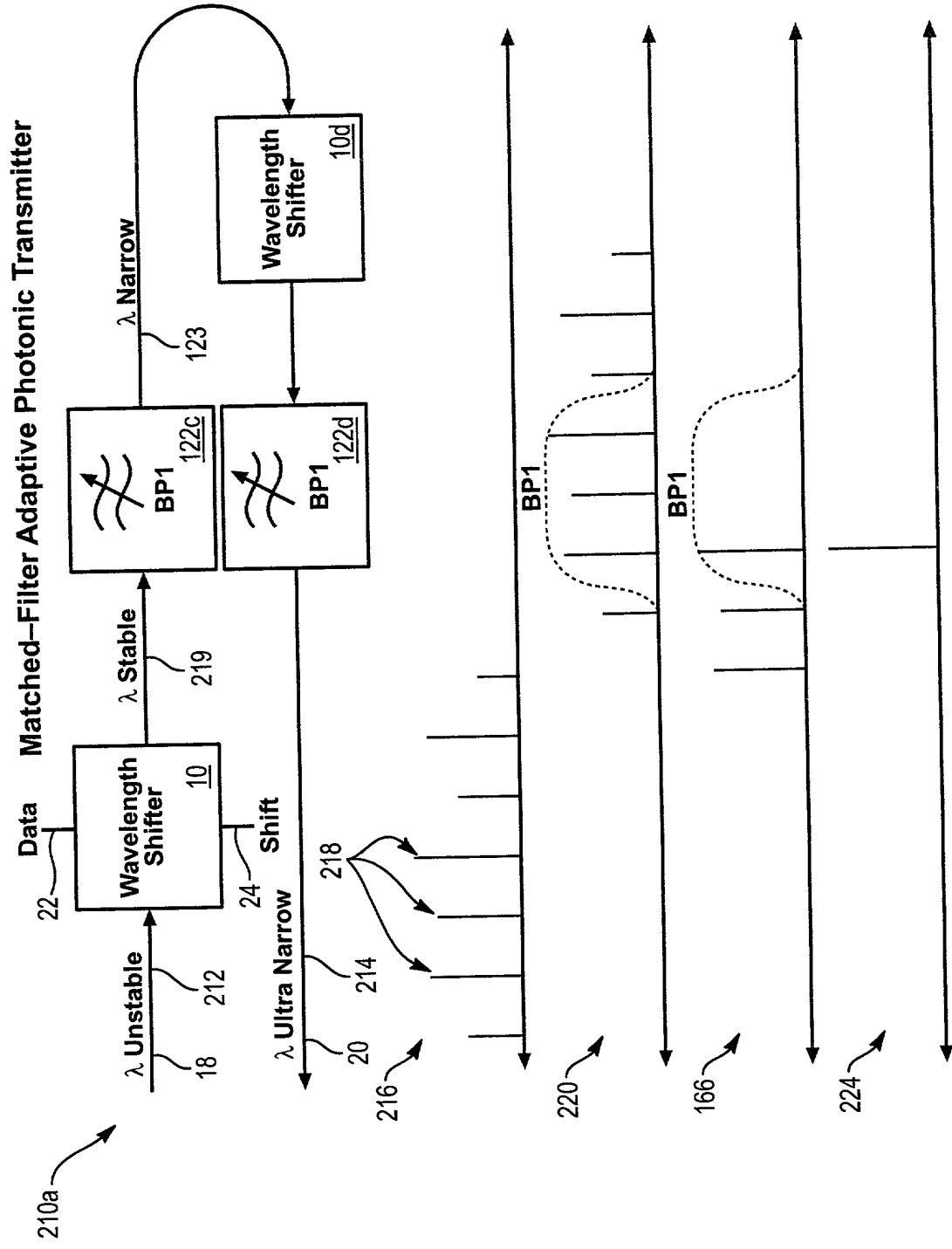


FIG. 32